

USSR

UDC 550.42

VAKHRUSHEV, V. A., and TSIMBALIST, V. G., Institute of Geochemistry, Siberian Branch of the Academy of Sciences USSR, Irkutsk, and Institute of Geology and Geophysics, Siberian Branch of the Academy of Sciences USSR, Novosibirsk

"Gold in Ultrabasic Rocks of the Earth"

Moscow, Geokhimiya, No 9, Sep 72, pp 1128-1130

Abstract: Notwithstanding the increased interest in the distribution of Au in rocks, including those of the basic and ultrabasic types, the content of this element in ultrabasic rocks has been determined only in 10 instances hitherto. In the work reported at present, 20 samples of ultrabasic rocks from the kimberlite pipe Obnazhennaya in Yakutia (10 samples), explosion/extrusion/ pipes of the Northern Minusinsk depression (5 samples), lava channels of the Avachinsk volcano on Kamchatka (2 samples), and lava channels from the Hawaiian Islands (3 samples) were analyzed for their Au content. The average Au content was 0.0100, 0.0021, 0.0025, and 0.0230 g/ton in samples from the Obnazhennaya pipe, the Northern Minusinsk depression, the Avachinsk volcano, and the Hawaiian Islands, respectively. The distribution of Au was fairly uniform except in the samples from the Obnazhennaya pipe, in which a variation of the Au content in the range from 0.0028 to 0.0420 g/ton was found.

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VAKHRUSHEV, V. A., and TSIMBALIST, V. G., *Geokhimiya*, No 9, Sep 72, pp 1128-1130

The variation was due either to postmagmatic contamination or redistribution of Au in the rock. The authors thank N. V. Sobolev, V. A. Kutolin, and N. G. Prokoptsev for supplying samples of ultrabasic rocks.

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AP0100579

Abstracting Service:
CHEMICAL ABST. 5-70

Ref. Code:

UR0065

102349z Vapor conversion of a gasoline raffinate under pressure. Veselov, V. V.; Meshenko, N. T.; Tsinbalistaya, N. N. (Inst. Gaza, USSR). *Khim. Tekhnol. Topl. Mater.* 1970, 15(2), 13-17 (Russ). During steam conversion of a dearomatized platformate gasoline, b. 43-136°, introduced as a 1:5 gasoline-steam mixt. at a vol. rate of 1 hr⁻¹ onto a 1:1 Ni-Cr catalyst at 320°, an increase in pressure from 1 to 31 atm reduced H content in the product from 62.0 to 31.5% and raised CH₄ content from 15.2 to 43.1% without substantially changing CO₂ content. The limiting feed rate for complete gasification increased linearly from 1.7 to 4.4 hr⁻¹ as the pressure was increased from 1 to 20 atm. At 20 atm and otherwise identical conditions, a change in input rate from 1 to 5 hr⁻¹ did not appreciably affect product compn. At an input rate of 4.4 hr⁻¹, a temp. increase from 200 to 320° raised conversion from 20 to 100%. When H was the desired product, purer H and higher efficiency were attainable by carrying out the process in 2 stages, the first an adiabatic one at low temp. in a flow reactor and the second a H production process in a tube furnace, the first section of which was operable with the converted feed at 700-800° without carbonization of the catalyst.

Lucile S. Davison

REEL/FRAME
19842014

USSR

UDC 620.178.311.8

TROYAN, I. A., SHEVCHUK, A. D., and TSIMBALISTYY, YA. I., Institute of Strength Problems, Academy of Sciences Ukrainian SSR

"Formation of Temperature Stresses During High-Frequency Fatigue Tests"

Kiev, Problemy Prochnosti, No 3, Feb 73, pp 65-69

Abstract: An attempt was made in this work to evaluate the temperature field and stress in the high-frequency fatigue testing of five different materials: steel E10, steel 45, alloy D16T, copper, and alloy 1Kh18N10T. The following premises were made: 1) the samples were in the form of round infinite rods. The level of variable load was independent of the axial coordinate. Displacements in the axial direction were not constrained. 2) The coefficients of energy dissipation and thermoconductivity did not vary with change of thermal and stress states of the material. 3) The steady-state mode was examined. An analysis of the temperature stresses forming in the samples due to hysteresis losses in cyclic loading is given. Testing of the five materials

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TROYAN, I. A., et al., Problemy Prochnosti, No 3, Feb 73, pp 65-69

at a frequency of 20 khz showed that in the case of a large coefficient of energy dissipation and low thermoconductivity, the thermal stresses can reach a significant magnitude, which, is ignored, leads to errors in the determination of stresses. At the same time these stresses do not exceed the fatigue strength by more than 3.5% on the basis of 10^9 cycles and have little effect on the fatigue processes. 7 figures, 2 tables, 7 bibliographic references.

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"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R002203330009-9

UNCLASSIFIED
ELECTROTHERMAL PRODUCTION OF PHOSPHORUS -U-
AUTHOR-(02)-TISSEN, G.I., TSIMERMANIS, E.
PROCESSING DATE--13NOV70
COUNTRY OF INFO--USSR
SOURCE--KHIM. PROM. (MOSCOW) 1970, 46(3), 200-2
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--SLAG, ELECTRIC FURNACE, CHEMICAL PRODUCTION, PHOSPHOROUS,
FLUID VISCOSITY, SURFACE TENSION, FLUID DENSITY, SILICA, CALCIUM OXIDE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/1005
CIRC ACCESSION NO--AP0134717
STEP NO--UR/0064/70/046/043/0200/0202
UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R002203330009-9"

ABSTRACT/EXTRACT--(U) GP-0- UNCLASSIFIED
PROCESSING DATE--13NOV70
ABSTRACT. THE LIQ. SLAGS FROM THE
ELECTROTHERMAL PRODUCTION OF P CONTAIN MGO 2.5-4.3, AL SUB2 O SUB3
1.2-3.6, F 2.0-2.8, FE0 0.1-0.3, S 0.2-0.5, K SUB2 O PLUS NA SUB2 O
0.7-1.2, P SUB2 O SUB5 0.2-1.4, MNO UP TO 0.35, CAO 45-6PERCENT, AND THE
BALANCE SIO SUB2; THEIR VISCOSITY DECREASES FROM SIMILAR TO 200 P AT
1150DEGREES TO SIMILAR TO 10 P AT 1350-1400DEGREES. THE SURFACE
TENSION DECREASES FROM 400 DYNES-CM. AT 1250DEGREES TO 320-50 DYNES-CM
AT 1450DEGREES; THE D. AT 1350-1450DEGREES IS 2.67-2.70 G-CM PRIME3.
THE ETA OF VITRIFIED SLAGS DECREASES FROM 10 PRIME11 TO 10 PRIME9 AND
THEN INCREASES TO 3 TIMES 10 PRIME11 P WHEN THE TEMP. IS INCREASED FROM
700 TO 800 TO 830DEGREES, RESP.

UNCLASSIFIED

USSR:

UDC 669.872.411(088.8)

TSIMERGAKI, V. A., LAVROVA, G. V., and KONDRUK, YE. I., Institute of General and Inorganic Chemistry, Academy of Sciences Ukrainian SSR

"Method for Refining Indium"

USSR Author's Certificate No 263369, filed 6 Jul 57, published 2 Jun 70
(from RZH-Metallurgiya, No 11, Nov 70, Abstract No 11G173 P)

Translation: A method is proposed for refining In which involves fine diffusion of molten metal and separation of metallic In by electrolysis. To improve work conditions prior to fine diffusion, In is subjected to fusion with Bi and with alloys of Bi with Pb and Sn.

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USSR

TSIMRING, SH.YE. [Gor'kiy State University]

UDC 621.3.032.266

"On The Velocity Spread In Screw Electron Beams"

Izv.VUZ: Radiofizika, Vol XV, No 8, Aug 1972, pp 1247-1259

Abstract: It is shown theoretically that the initial electron velocities and the roughness of the emitter can substantially increase the spread of oscillation velocities in the screw beams which are used in cyclotron-resonance masers. Schemes are presented for a magnetron-injector adiabatic electron gun with which the screw beams are formed. The cut-off curves of collector and anode currents and the corresponding values of the velocity spread at the normal law of the initial velocity distribution of the electrons are calculated. In an appendix a calculation is made of the transverse adiabatic invariant with the initial velocities taken into account. The author thanks A.L. Gol'denberg and M.I. Petelin for their interest in the work and for helpful discussions. 5 fig. 12 ref. Received by editors, 1 Dec 1971.

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USSR

UDC: 621.372.413

BITYURIN, Yu. A., PAVEL'YEV, V. G., TSIMRING, Sh. Ye.

"Equivalent Resistance of a System of Two Resonators"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronic Technology. Scientific and Technical Collection. SHF Electronics), 1970, vyp. 3, pp 47-80 (from RZh-Radiotekhnika, No 7, Jul 70, Abstract No 7B138)

Translation: A system of two resonators coupled through slots is considered. Relationships are given which define the resonance frequencies and equivalent impedance reduced to the coupling slots. Numerical evaluations show that the values of the equivalent impedance in the case of tuned slots are comparable with the corresponding values in the interaction spaces of hollow resonators used in klystrons for the centimeter range. Data are given from experimental studies of a system of coupled open resonators with spherical reflectors. Five illustrations, bibliography of eight titles. Resumé.

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UNCLASSIFIED

NA IS PARALLEL TO C SUB2 H SUB5 CDD, NO SUB3, NO SUB2; NA IS
PARALLEL TO C SUB3 H SUB7 CDD, NO SUB3, NO SUB2; AND NA IS PARALLEL TO
AUTHOR-(02)-TSINDRIK, N.M., KHAYTINA, M.V.

PROCESSING DATE--04DEC70

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(5), 1405-13.
DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SODIUM, NITRATE, NITRITE, CARBOXYL RADICAL, COMPLEX COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3007/0924

CIRC ACCESSION NO--AP0136355

STEP NO--UR/0078/70/015/005/1405/1413

UNCLASSIFIED

CIRC ACCESSION NO--AP0136355 UNCLASSIFIED
ABSTRACT/EXTRACT--(U) GP-0-

PROCESSING DATE--04DEC70

ABSTRACT. CRYSTN. DATA OF 16 CROSS SECTIONS
OF NA IS PARALLEL TO NO SUB3, NO SUB2, ETCO SUB2 AND NA IS PARALLEL TO
NO SUB3, NO SUB2, PRCO SUB2, AND 8 CROSS SECTIONS OF NA IS PARALLEL TO
NO SUB3, NO SUB2, ISO PRCO SUB2 SYSTEMS ARE TABULATED. SYSTEMS HAVING
NORMAL CARBOXYLATE ANIONS UNDERGO COMPLEX FORMATION WHICH IS NOT OBSD.
IN THE ISO PRCO SUB2 SYSTEM.

UNCLASSIFIED

UNCLASSIFIED
BINARY SYSTEMS OF SODIUM NITRATE, SODIUM NITRITE, AND THE SODIUM
SALT OF AN ALIPHATIC ACID -U-
AUTHOR-(03)-TSINDRIK, N.M., SOKOLOV, N.M., KHAITINA, M.V.
PROCESSING DATE--30OCT70
COUNTRY OF INFO--USSR
SOURCE--ZH. NEORG. KHIM. 1970, 15(3), 852-5
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--EUTECTIC MIXTURE, SODIUM NITRATE, SODIUM NITRITE, ALIPHATIC
CARBOXYLIC ACID, CRYSTALLIZATION, ORGANOSODIUM COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1994/1728
CIRC ACCESSION NO--AP0115557
STEP NO--UR/0078/70/015/003/0852/0855
UNCLASSIFIED

012
CIRC ACCESSION NO--AP0115557 UNCLASSIFIED
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TRIANGULAR PHASE DIAGRAMS OF NA
PRIME POSITIVE PARALLEL TO HCD SUB2 PRIME NEGATIVE, NO SUB3 PRIME
NEGATIVE, NO SUB2 PRIME NEGATIVE, AND NA PRIME POSITIVE PARALLEL TO ACO
PRIME NEGATIVE, NO SUB3 PRIME NEGATIVE, NO SUB2 PRIME NEGATIVE SYSTEMS
(SYSTEMS (1) AND (2), RESP.) WERE CONSTRUCTED BY USING DTA AND VISUAL
POLYTHERMIC DETNS. SYSTEM (1) HAS 4 CRYSTN. FIELDS (OF NAO SUB2 CH,
NANO SUB3, AND 2NANO SUB3 .3NANO SUB2) MEETING AT THE EUTECTIC AT
142DEGREES AND 33.5, 29, AND 37.5 OF THE COMPONENT SALTS, RESP., AND AT
THE TRANSITION POINT AT 152DEGREES AND 30.5, 32, AND 37.5PERCENT OF THE
COMPONENT SALTS, RESP. ANALOGOUSLY, THE 4 CRYSTN. FIELDS OF (2) MEET AT
THE EUTECTIC POINT AT 173DEGREES AND NANO SUB3 32, NANO SUB2 42, AND
NAOAC 26PERCENT AND AT THE TRANSITION POINT AT 178DEGREES AND 47, 33,
AND 20PERCENT OF THE COMPONENT SALTS, RESP.).

UNCLASSIFIED

USSR

UDC: 669.25:539.425

TSINENKO, O. V., TYUMENTSEV, A. N., BUSHNEV, L. S. and KOROTAYEV, A. D.,
Siberian Physicotechnical Institute imeni V. D. Kuznetsov

"Study of a Modulated Structure in Co-Ni-Ti Alloys"

Sverdlovsk, Fizika metallov i metallovedeniye, Vol 32, No 4, Oct 71,
pp 758-766

Abstract: The initiation of a modulated structure during the decay of Alnico-, Ticonal- and Nimonic-type alloys determines the shaping of their high physical, mechanical and high-temperature properties governing extensive utilization of these alloys. Some of the properties related to the finely disperse segregations of the nonmetallic phase. Discussed here are measurements of the kinetic of changes in resistivity, x-ray and electron microscopic patterns (both of replicas and thin foils) applied to the study of the decay pattern of Co-Ni-Ti alloys I comprising 54% Co + 42% Ni + 4% Ti and II -- 53% Co + 40% Ni + 7% Ti, wt. %. The alloys with various Ti contents were selected to determine the effect of the bulk share of finely disperse segregations on the development of a modulated structure at various temperatures. The kinetics of changes in resistivity

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TSINENKO, O. V., et al, Fizika metallov i metallovedeniye, Vol 32, No 4, Oct 71, pp 758-766

during aging of Co-Ni-Ti alloys following quenching from 1050°C and the structural patterns at various stages of decay are reflected in curves and radiographs. The early stages of aging reveal a zone-type decay. The coagulation of particles of the new phase results in the development of a three-dimensional periodic modulated structure. The modulation periods at different temperatures are measured. It is shown that the particles of the new phase represent an ordered phase of Co_3Ti . (6 illustrations, 28 bibliographic references).

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USSR

Super alloys

UDC 669.25:539.292

TSINENKO, O. V., PSHEMINA, L. S., TYUMENTSEV, A. N., BUSHNEV, L. S., and
KOROTAYEV, A. D., Siberian Physico-Technical Institute imeni V. D. Kuznetsov

"Features of Discontinuous Decomposition in Co-Ni-Ti Alloys"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 32, No 1, Jul 71, pp 58-64

Abstract: From data obtained by conventional and electron microscopy and x-ray analysis of aging, discontinuous decomposition in a Co-Ni-Ti alloy was studied where it was shown that by means of discontinuous decomposition there occurs precipitation of the same ordered gamma-prime phase which is a case of continuous decomposition. Kinetics of discontinuous decomposition depend substantially on the state of the continuous decomposition of the matrix ahead of the front of the growing cell. It was shown that coalescence of the finely dispersed phase after continuous and discontinuous decomposition occurs as a result of secondary discontinuous decomposition so that by means of discontinuous decomposition there occurs not only precipitation of stable and metastable phases but also their coalescence. Five figures, 22 bibliographic references.

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USSR

KONOVALOV, Ye. G. and TSINGAUZ, V. Kh.

UDC: 620.172+620.178.152.2

"Determining the Mechanical Characteristics of Steel from the Results of Hardness Testing"

Minsk, Izvestiya Akademii Nauk BSSR--Seriya Fiziko-Tekhnicheskikh Nauk, No 1, 1972, pp 11-15

Abstract: The purpose of this paper is to develop a single method for determining the whole complex of the mechanical characteristics of steel with a minimum of effort and time. The authors discuss the Meyer law coefficients, Brinell hardness and strength and the connection between the mechanical characteristics under expansion. An expression is derived for the strength of steels, and an important constant in this expression is computed. The theoretically derived formula is compared with an empirical formula obtained by the authors from experiments they performed on specimens of the St3, 45, U8, R18, and Kh18N9T types, and the value of the empirically obtained constant is given. Relationships are also obtained for the determination of all mechanical characteristics. The authors are associated with the Physico-Technical Institute of the Belorussian Academy of Sciences.

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UDC 620.178.152.2

KONOVALOV, YE. G., Academician of the Belorussian SSR Academy of Sciences,
and TSINGAUZ, V. KH., Engineering Physics Institute, Academy of Sciences,
Belorussian SSR

"Determining Maximum Brinell Hardness"
Minsk, Doklady Akademii Nauk BSSR, Vol 15, No 2, 1971, pp 137-139

Abstract: Since Brinell HB hardness passes through a maximum with increase in indenter loading and a corresponding rise in deformation d/D , yielding a hardness curve in the coordinates HB versus d/D that is similar to curves of standard stresses for tensile testing, a possible stable relationship can be assumed between maximum hardness HB_{max} and ultimate tensile strength σ_b . A relationship between diameter d and depth h of the recovered indentation for steel was studied:

$$h = \frac{0.2}{D} d^{2.16}. \text{ A formula was derived for } HB_{max}:$$

$HB_{max} = a \cdot D^{n-2} \cdot HB'_{mm}$. Here D is the diameter of the indenter ball, a is the dimensional coefficient of Meyer's law, and HB'_{mm} is some

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KONOVALOV, YE. G., and TSINGAUZ, V. KH., Doklady Akademii Nauk BSSR, Vol 15, No 2, 1971, pp 137-139

function of n , the Meyer's law exponent. The value of n was found to be determined from the heights h_1 and h_2 of two recovered indentations made with loads in the ratio $P_2/P_1 = 2$. The formula for n was determined to be:

$$n = \frac{0.65016}{\lg h_2/h_1} .$$

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1/2 029 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--STUDY OF SOME PROPERTIES OF HIGH MOLECULAR FIBRINOGEN TRYPTIC
HYDROLYSIS PRODUCTS -U-
AUTHOR-(05)-BELITSER, V.O., VARETSKA, T.V., TSINKALOVSKA, S.M.,
POZDNYAKOVA, T.M., ORLOVSKA, N.M.
COUNTRY OF INFO--USSR
SOURCE--UKRAYNS'KIY BIOKHMICHNIY ZHURNAL, 1970, VOL 42, NR 2, PP 165-174
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--FIBRINOGEN, HYDROLYSIS, POLYMERIZATION, TRYPSIN, AMINO ACID,
ELECTROPHORESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1988/1677

STEP NO--UR/0300/70/042/002/0165/0174

CIRC ACCESSION NO--AP0106423

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--02OCT70

2/2 029

CIRC ACCESSION NO--AP0106423

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. IT IS KNOWN THAT HIGH MOLECULAR WEIGHT PRODUCTS FORMED DURING PROTEOLYTIC DEGRADATION OF FIBRINOGEN, INHIBIT THE FIBRIN MONOMER POLYMERIZATION. THE EXISTENCE OF COMPLEMENTARY STRUCTURES CHARACTERISTIC FOR THE SPECIFIC POLYMERIZATION CENTERS IN THESE FRAGMENTS MAY BE POSTULATED. HIGH MOLECULAR WEIGHT PRODUCTS, APPEARING DURING DEGRADATION OF FIBRINOGEN MOLECULE BY LOW CONCENTRATIONS OF TRYPSIN (ENZYME SUBSTRATE RATIO 1:2500 BY WEIGHT) WERE STUDIED. THEY WERE SEPARATED FROM TRYPTIC HYDROLYZATE OF FIBRINOGEN BY GEL FILTRATION ON SEPHADEX G 150. IT WAS SHOWN THAT DURING HYDROLYSIS LASTING FOR 120 HOURS AND MORE THESE PRODUCTS WERE GREATLY CHANGED IN THEIR ANTIPOLYMERIZING ACTIVITY, BEHAVIOUR IN GEL FILTRATION AND POLYACRYLAMIDE GEL ELECTROPHORESIS AND N TERMINAL AMINO ACIDS AS WELL. THE MOST ACTIVE AND AT THE SAME TIME THE LEAST HETEROGENEOUS PRODUCTS WERE PRODUCED DURING THE PROLONG HYDROLYSIS OF FIBRINOGEN BY TRYPSIN.

UNCLASSIFIED

4. Medicine and Public Health

Public Health

TSINKER, M.

43. USSR

ESSONENKO, V., head of the City Public Health Department, TSINKER, M., head of the Department of Social Hygiene and Organization of Public Health of the Institute for the Advanced Training of Physicians, Novokuznetsk

"Automated Control and Planning Systems"

Moscow, Meditsinskaya Gazeta, 23 Apr 71, p 3

Translation: Novokuznetsk is a large industrial center with a population of over 500,000. It has more than 100 industrial enterprises including Kuznetsk Metallurgical Combine and Kest-Siberian Metallurgical Plant, one of the biggest enterprises of the Ministry of Ferrous Metallurgy USSR. All this imposes special tasks upon city public health administration. Its system includes over 60 large therapeutic-prophylactic and about 8,000 hospital beds (15.5 beds per 1000 inhabitants). The annual budget of these institutions amounts to 27 million rubles.

Owing to a great diversity and complexity of tasks performed by public health services, constant growth of the network of medical institutions, specialization of medical care, and introduction of new diagnostic media, the influx of information steadily increases.

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1/2 014 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--SEMISYNTHETIC PENICILLINS. III. METHOXY AND
DIALKOXYPHENYLBENZYL PENICILLINS -U-
AUTHOR--(051)-ANDZHGYAN, A.L., TSINKER, M.G., MKRTCHYAN, E.S., TERZAKHARYAN,
YU.Z., OGANYAN, SH.G.
COUNTRY OF INFO--USSR

SOURCE--KHIM.-FARM. ZH. 1970, 4(3), 5-10

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PENICILLIN, BENZENE DERIVATIVE, CHLORIDE, BACTERICIDE,
MOLECULAR STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/1357

STEP NO--UR/0450/70/004/003/0005/0010

CIRC ACCESSION NO--AP0125005

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--13NOV70

2/2 014
CIRC ACCESSION NO--AP0125005

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MONO AND DISUBSTITUTED BENZOYL
CHLORIDES (0.02 MOLE) WERE TREATED WITH 0.02 MOLE 6,AMINOPENICILLANIC
ACID (I) TO YIELD 10 II (R PRIME1 EQUALS H OR O, M, OR P-OME; R PRIME2
EQUALS H, OR P-ALKOXY; N EQUALS O). CONDENSATION OF I WITH MONO AND
DISUBSTITUTED PHENACYL CHLORIDES GAVE 9 II (R PRIME1 EQUALS O, M, OR
P-MEO; R PRIME2 EQUALS H OR P-ALKOXY; N EQUALS 1). AN ANTIBACTERIAL
ACTIVITY SPECTRUM OF II IS GIVEN. FACILITY: INST. TONK. ORG.
KHM., EREVAN, USSR.

UNCLASSIFIED

TSINKER, M.N.

SO:IPRS 55015
25 JAN 1972

UDC: 614.4(-22):5

DEVELOPMENT OF AN AUTOMATED SYSTEM OF MANAGEMENT OF URBAN EPIDEMIOLOGICAL SERVICE

(Article by V.V. Resononko, M.N. Tsinker, V.I. Slutskiy, N.A. Ostaseva, Novokuznetsk Municipal Health Department (headed by V.V. Resononko) and Chair of Social Hygiene and Public Health Organization (headed by M.N. Tsinker, candidate of medical sciences), Novokuznetsk Institute for the Advanced Training of Physicians (vice-chancellor: Professor G.I. Starkov), Moscow, Sovetskoye Zdravookhraneniye, Russian, No 12, 1971, submitted 4 May 1971, pp 41-45)

Epidemic control work and, in particular, control of intestinal infections occupies a special place in the public health system. For prompt and complete detection and decontamination of the source of infection, establishment and neutralization of means of transmission of the pathogen, public health organizers must concentrate maximum attention on development of new and more effective methods in medical service work.

In 1969, the Novokuznetsk Municipal Health Department determined to optimize the information system with respect to incidence of intestinal infections. Under the supervision of V.I. Slutskiy, candidate of medical sciences and senior instructor at the Novokuznetsk Institute for the Advanced Training of Physicians, new approaches have been developed for investigation of the epidemic process and organization of supply of information at different levels of management. Prototypes of epidemiological examination cards have been created which permit gathering fuller and more objective information. A change in the method of gathering information involving mandatory interview with the patient himself while in the hospital by a specially assigned assistant to the epidemiologist, made it possible to obtain important information pertaining to the probable circumstances involved in the infection.

The results of sanitary-bacteriological examination of environmental objects are recorded in a formal document. This document facilitates qualitative evaluation of the degree of contamination which is of great interest for correlation analysis.

All information pertaining to intestinal infections is concentrated in a specially created service, the Laboratory of epidemiological analysis, to which it is forwarded by teletype. The information gathered in the form of

public health

USSR

UDC 620.193.4:669.295

TSINMAN, A. I., PISCHIK, L. M., BRUSENTOVA, V. M., ZAKHARENKOVA, L. Ye.

"Influence of Water and Oxidizers on Electrochemical and Corrosion Behavior of Titanium in Acetic-Acid Media"

Moscow, Zashchita Metallov, No 5, Sep-Oct, 1972, pp 567-569.

Abstract: Studies of the corrosion of titanium in aqueous solutions of acetic acid were performed using type VT-1 titanium. Titanium is not passivated in water-free acetic-acid solutions. The corrosion rates in 1 n. acetic-acid solutions of sodium acetate, determined by extrapolation of the linear sectors of the anode and cathode curves, indicate that titanium has good corrosion resistance in water-free acetic-acid solutions when no oxidizers are present, even at the boiling point. When the water content is over 0.02% in boiling acetic-acid solutions, titanium can be passivated. In the presence of water, titanium is spontaneously passivated in deactivated acetic-acid solutions. Addition of oxidizers to boiling solutions containing less than 0.1% water may shift the potential of titanium to the area of anode activation of the surface. With high water concentrations, titanium is stable in acetic-acid solutions both with and without oxidizers.

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Corrosion

USSR

UDC: 620.199

~~TSINMAN, A. I.~~, DEGTYAREVA, V. K., NEYMAN, N. S., KASSINSKAYA, L. L., KUZUB, V. S., and MURASHKINA, A. A., Severodonetsk Branch, State Institute of the Nitrogen Industry; Zhdanov Plant of Heavy Machinery

"Determining the Tendency of Kh18N10T Chromium Nickel Steel to Intergranular Corrosion by the Method of Potentiostatic Etching"

Moscow, Zashchita Metallov, Vol. 6, no. 4, Jul-Aug 70, pp 475-478

Abstract: Commercial melts of Kh18N10T and OKh18N10T steels were used for elaborating the process of potentiostatic etching in order to determine the tendency of steel to intergranular corrosion (TIC). A total of 88 experimental melts have shown agreement of results of potentiostatic etching (PE) with the "AM" method specified in GOST 6032-58. The new method also makes it possible to observe the nature of dissolution on a longitudinal polished end. A curve in the original article shows anodic polarization of OKh18N10T steel at potential application rate of 1 v/hr in 20% H₂SO₄, 50% H₂SO₄, 1 n H₂SO₄ + 0.003 n KCNS, 1 n H₂SO₄ + 0.05 KCNS. Another figure showing the anodic polarization

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USSR

TSIMAN, A. I., et al, Zashchita Metallov, Vol. 6, no. 4, Jul-Aug 70, pp 475-478

curve obtained on OKh18N10T steel in 50% H_2SO_4 at a potential application rate of 1 v/hr reflects the TIC of the steel. At a potential of 0.28 v a longitudinal ground end of steel with TIC, after 30 minutes of etching, showed a clear lattice of etched grain boundaries. For steels with a strongly pronounced TIC the intergranular etching pattern appears within 10--15 minutes.

2/2

USSR

UDC: 621.314.652

BELYAYEV, V. B., LOGINOVA, T. A., ~~TSINMAN, I. M.~~

"A Device for Igniting Gas-Discharge Tubes With Liquid Cathode"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 7, Mar 72, Author's Certificate No 32959^h, Division G, filed 24 Aug 70, published 9 Feb 72, p 208

Translation: This Author's Certificate introduces a device for igniting gas-discharge tubes with liquid cathode. The device contains two coaxially arranged igniting electrodes, one of which is made in the form of a rod. These electrodes are accommodated in a branch of the tube. The device also contains a pulse transformer. As a distinguishing feature of the patent, the reliability is increased, the design is simplified, and the ignition voltage is reduced by placing the primary winding of the pulse transformer on the branch of the tube, the secondary winding being the second ignition electrode which is made in the form of a helix with the end on the side furthest from the cathode being electrically connected to the rod electrode, while the other end of the helix forms with the rod electrode a discharge gap close to the cathode.

1/1

USSR

UDC: 532

BRANOVER, G. G., and TSINOBER, A. B.

Magnitnaya Gidrodinamika Neszhimayemykh Sred (Magnetic Hydrodynamics of Incompressible Media), Moscow, "Nauka," 1970, 380 pp

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USSR

BRANOVER, G. G. and TSINOBBER, A. B., *Magnitnaya Gidrodinamika Neszhimayemykh*
Sred, Moscow, 1970

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USSR

BRANOVER, G. G., and TSINOBER, A. B., *Magnitnaya Gidrodinamika Neszhimayemykh Sred*, Moscow, 1970

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USSR

BRANOVER, G. G. and TSINOBER, A. B., *Magnitnaya Gidrodinamika Neszhimayemykh Sred*, Moscow, 1970

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USSR

BRANOVER, G. G., and TSINOBER, A. B., *Magnitnaya Gidrodinamika Neszhimayemykh Sred*, Moscow, 1970

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USSR

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Sred, Moscow, 1970

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USSR

BRANOVER, G. G., and TSIFORER, A. B., *Magnitnaya Gidrodinamika Neszhimayemykh*
Sred. Moscow, 1970

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USSR

BRANOVER, G. G. and TSINOBER, A. B., Magnitnaya Gidrodinamika Neszhimayemykh
Sred. Moscow, 1970

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8/8

1/2 058 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--SOME COMMON PROPERTIES OF MAGNETOHYDRODYNAMIC TURBULENCE IN TUBES
AND THEIR INVESTIGATION WITH THE AID OF CONDUCTION ANEMOMETERS -U-
AUTHOR-(04)-BRANOVER, G.G., GELFGAT, YU.M., KIT, L.G., TSINOBER, A.B.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK SSSR, IZVESTIIA, MEKHAMKA ZHIDKOSTI I GAZA,
MAR.-APR. 1970, P. 35-44
DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--MAGNETOHYDRODYNAMIC FLOW, TURBULENT FLOW, ANEMOMETER, MAGNETIC
FIELD EFFECT, REYNOLDS NUMBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/1108

STEP NO--UR/0421/70/000/000/0035/0040

CIRC ACCESSION NO--AP0124842

UNCLASSIFIED

2/2 058

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124842

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THEORETICAL CONSIDERATIONS CONCERNING THE MECHANISM RESPONSIBLE FOR THE SUPPRESSION MHD TURBULENCE BY A MAGNETIC FIELD. THE PRINCIPAL TENDENCIES CHARACTERISTIC OF THE REARRANGEMENT OF PERTURBED MOTION UNDER THE INFLUENCE OF A MAGNETIC FIELD ARE STUDIED ON THE BASIS OF RESULTS OF INVESTIGATIONS OF MHD TURBULENCE BY METHODS IN SPECTRAL THEORY. IT IS ASSUMED THAT TURBULENCE IS UNIFORM AND THAT THE MAGNETIC REYNOLDS NUMBER IS MUCH SMALLER THAN UNITY. THE THEORETICAL RESULTS OBTAINED ARE VERIFIED BY EXPERIMENTS PERFORMED BY MEANS OF A CONDUCTION ANEMOMETER. THE THEORY OF THIS DEVICE IS REVIEWED.

UNCLASSIFIED

1/2 030 UNCLASSIFIED PROCESSING DATE--2300170
TITLE--TUNGSTEN AND GALLIUM STRUCTURAL IMPURITIES IN SYNTHETIC QUARTZ
CRYSTALS -U-
AUTHOR--(03)-BALITSKIY, V.S., SAMOYLOVICH, M.I., TSINDBER, L.I.
COUNTRY OF INFO--USSR
SOURCE--AKADEMIIA NAUK SSSR, DOKLADY, VOL. 191, MAR. 21, 1970, P. 580-583
DATE PUBLISHED--21MAR70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--TUNGSTEN, GALLIUM, QUARTZ CRYSTAL, AUTOCLAVE, METAL OXIDE,
ABSORPTION BAND SPECTRUM, CRYSTAL GROWING
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1997/1084 STEP NO--UR/0020/70/191/000/0580/0583
CIRC ACCESSION NO--AT0119943
UNCLASSIFIED

2/2 030

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0119943

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DESCRIPTION OF AUTOCLAVE
EXPERIMENTS IN THE GROWING OF QUARTZ CRYSTALS CONTAMINATED WITH W AND GA
FROM AQUEOUS WEAKLY ACIDIC FLUID CONTAINING SOLUTIONS OF TUNGSTEN AND
GALLIUM OXIDES. THE SPECTRAL PROPERTIES OF THESE CRYSTALS ARE
DISCUSSED. THE PRESENCE OF WEAK ABSORPTION BANDS AT 2800, 3500, 4500,
5200 AND 6300 A IN IRRADIATED CRYSTALS IS NOTED. FACILITY:
VSESOUZNYI NAUCHNO ISSLEDOVATELSKII INSTITUT SINTEZA MINERAL'NOGO
SYR'IA, ALEKSANDROV, USSR.

UNCLASSIFIED

009
UNCLASSIFIED
TITLE—INTENSE PURIFICATION OF TETRABUTYL TIN BY A FRACTIONAL DISTILLATION
METHOD—U
AUTHOR—(03)—DEVYATYKH, G.G., UMILIN, V.A., TSINOVVOY, YU.N.
COUNTRY OF INFO—USSR
SOURCE—IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (3), 541-6
DATE PUBLISHED—70
SUBJECT AREAS—CHEMISTRY
TOPIC TAGS—ORGANOTIN COMPOUND, CHEMICAL PURITY, FRACTIONAL DISTILLATION
CONTROL MARKING—NO RESTRICTIONS
DOCUMENT CLASS—UNCLASSIFIED
PROXY REEL/FRACTION—2000/0739
CIRC ACCESSION NO—AP0124409
STEP NO—UR/0062/70/000/003/0541/0546
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE—30OCT7

CIRC ACCESSION NO--AP0124409

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CIRCULATING TYPE OF
EBULLIOMETER WAS USED TO RECTIFY CRUDE BU SUB4 SN AND TO EVALUATE THE
SEPN. COEFFS. OF THIS SUBSTANCE FROM BU SUB3 SNCL. THE BEST METHOD OF
PURIFICATION IS RECTIFICATION IN HIGH VACUUM, WHICH MADE POSSIBLE
PRODUCT PURITY OF LESS THAN 5 TIMES 10 PRIMENEGATIVE4 MOLE PERCENT
IMPURITIES. THE VALUES OF SEPN. COEFFS. WERE TABULATED VS. THE
THERMODYNAMIC ACTIVITY COEFFS. OF COMPONENTS IN THE CRUDE MATERIAL. FOR
BEST RESULTS THE HIGH BOILING ADMIXTS. WERE REMOVED FIRST, THEN THE LOW
BOILING IMPURITIES WERE SEPD. THE DESIGN OF THE DISTN. COLUMN WAS SHOWN
DIAGRAMMATICALLY. FACILITY: LAB. STABIL. POLIM., GORKI, USSR.

UNCLASSIFIED

USSR

UDC: 632.95

GVERDTSITELI, I. M., MUKHASHAVRIYA, A. L., TSIRGILADZE, T. V., ADAMIYA, S. V.,
TALIYA, D. P., TSINTSADZE, E. S., and KAPANADZE, G. G., Institute of Plant Pro-
tection, Academy of Sciences, Georgian SSR

"Study of the Toxicity of Certain Organotin Preparations for the European
Spruce Bark Beetle (*Dendroctonus micans kugel*)"

K izucheniyu toksicheskikh svoystv nekotorykh olovoorganicheskikh preparatov
protiv bol'shogo yelovogo luboyeda (*Dendroctonus micans kugel*) (cf. English
above), Tbilisi, 1970, 8 pp, bibliogr. 4 titles (from RZh-Khimiya, No 23, 10
Dec 70, Abstract No 23 N726 Dep)

Translation: The toxicity of some new organotin unsaturated alcohols was stu-
died under Georgian conditions. The preparations were effective in controlling
the European spruce bark beetle both in the laboratory and in the field.

1/1

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Crystals & Semiconductors

USSR

GALKIN, A. A., PROKHOROV, A. D., TSINTSADZE, G. A., Donets Physico-technical Institute, Academy of Sciences, Ukrainian SSR

"Co²⁺ Spin-Lattice Relaxation in Monoclinic Tungstenites"

Leningrad, Fizika Tverdogo Tela, Vol 12, No 6, June 1970, pp 1784-1787

Abstract: Measurements of the spin-lattice relaxation of the Co²⁺ ion in ZnWO₄ and CdWO₄ crystals are carried out in a wide technical range. The temperature relationships of the relaxation times are determined. It is shown that on sectors of the temperature interval the relaxation is described by the mechanisms. An analysis of the results on the basis of a homologous series of monoclinic tungstenites is carried out. The results indicate that in the temperature range characteristic of single-phonon relaxation the environment of the

1/2

USSR

GALKIN, A. A., et al, Fizika Tverdogo Tela, Vol 12, No 6, June 1970, pp 1784-1787

magnetic center and its symmetry have little effect upon the process of spin-lattice relaxation, although in this range a substantial part may be played by the presence of defects in the crystals. In the range of higher temperatures the influence of the lattice type and lattice symmetry is explicitly manifested; this can be seen from a comparison of the coefficients for the respective times.

2/2

- 63 -

USSR

UDC 539.4:624.012

CHILINGARISHVILI, G. I., TSINTSAIZE, G. S., CHUMBURIDZE, G. K.

"Modeling of Reinforced-Concrete Vault of a Hydroelectric Station Building with Suspended Crane Runway Beams"

Izv. Tbilissk. n.-i. in-ta sooruzh. i gidroenerg. (News of the Tbilisi Scientific Research Institute of Installations and Hydroelectric Power), 1969, 12, pp 205-209 (from RZh-Mekhanika, No 3, March 1970, Abstract No 3V861)

Translation: Problems of modeling the reinforced-concrete vault of the underground building of a hydroelectric station with suspended crane runway beams are examined. A description of the design of a stand for model tests, methods of studying the model, and results of choosing formulations of materials for the model are given. Bibliography: 10 entries. Resume

1/1

1/2 022 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--SELENOCYANATOBI SMUTHATES OF SOME METALS -U-
AUTHOR-(03)-ZHUMABAYEV, A.ZH., TSINTSAOZE, G.V., SKOPENKO, V.V.
COUNTRY OF INFO--USSR
SOURCE--UKR. KHIM. ZH. 1970, 36(4), 329-32
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--COMPLEX COMPOUND, SELENIUM COMPOUND, CYANATE, BISMUTH
COMPOUND, IR SPECTRUM, X RAY DIFFRACTION, CYANIDE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3008/0897 STEP NO--UR/0073/70/036/002/0329/0332
CIRC ACCESSION NO--AP0137925
UNCLASSIFIED

2/2 022

CIRC ACCESSION NO--AP0137925

UNCLASSIFIED

PROCESSING DATE--04DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADDN. COMPODS. WERE PREPD. AND THEIR IR SPECTRA AND X RAY DIFFRACTION DIAGRAMS OBTAINED. THE SPECTRAL EVIDENCE INDICATE THAT MG SUB3 (BI(SECN) SUB6) SUB2 9L AND LI SUB2 BI(SECN) SUB5 3L, WHERE L EQUALS DIOXANE. CPMTADM BRIDGING SECN GROUPS (ABSORPTION AT 2130 CM PRIME NEGATIVE1) AND THAT THE SECN PRIME NEGATIVE IS BOUND TO THE BI VIA THE SE ATOM IN LI SUB3(BI(SECN) SUB6) 3ME SUB2 CO, NA SUB3(CI(SECN) SUB6), CA SUB3(BI(SECN) SUB6) SUB2 10L, SR SUB3(BI(SECN) SUB6) SUB2 8L, BA SUB3(BI(SECN) SUB6) SUB2 5L, MN SUB3(BI(SECN) SUB6) SUB2 10L, AND KBA(BI(SECN) SUB6) 2ME SUB2 CO. FACILITY: KIEV. GOS. UNIV. IM. SHEVCHENKO, KIEV, USSR.

UNCLASSIFIED

172 018
UNCLASSIFIED
TITLE--INFRARED ABSORPTION SPECTRA OF TRITHIOCYANATOCADMIATES -U-
PROCESSING DATE--13NOV70
AUTHOR--(03)-KHARITONOV, YU.YA., TSINTSAUZE, G.V., TSIVADZE, A.YU.
COUNTRY OF INFO--USSR
SOURCE--ZH. NEORG. KHIM. 1970, 15(4), 949-53
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--IR ABSORPTION SPECTRUM, AMMONIUM COMPOUND, CADMIUM COMPOUND,
CYANATE, CESIUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1999/1086
STEP NO--UR/0078/TQ/015/004/0949/0953
CIRC ACCESSION NO--AP0123079
UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0123079

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF SOLID AND AQ. SOLNS. OF $MCD(SCN) SUB3 \cdot xH SUB2 O$ (WHERE M EQUALS NA, K, CS, NH SUB4, C(NH SUB2) SUB3, AND ONE HALF BA AND WHERE X EQUALS 0-4) ARE GIVEN AND THE ASSIGNMENT OF THEIR BANDS IS TABULATED. WITH THE EXCEPTION OF SPECTRA OF CS SALTS WHICH SHOWED TERMINAL SCN ONLY, ALL THE REMAINING SPECTRA OF SOLID SALTS PROVED THE PRESENCE OF BRIDGED ALONG WITH TERMINAL SCN GROUPS. IN SOLNS. THE BRIDGE IS HYDROLYZED. FACILITY: INST. OBSHCH. NEORG. KHIM. IM, KURNAKOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 012

UNCLASSIFIED

PROCESSING DATE--020CT70

TITLE--INFRARED ABSORPTION SPECTRA OF ALKALINE EARTH METAL
TETRATHIOCYANATOZINCATES AND TETRATHIOCYANATOCADMATES -U-
AUTHOR--(03)-KHARITONOV, YU.YA., TSINTADZE, G.V., TSIVADZE, A.YU.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(3), 710-14

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ALKALINE EARTH METAL, CRYSTAL, COMPLEX COMPOUND, CYANATE,
THIOCYANATE, IR ABSORPTION SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY SEAL/FKAME--1993/0556

STEP NO--UR/0078/70/015/003/0710/0714

CIRC ACCESSION NO--AP0113447

UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0113447

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF SR(NCS) SUB2 .3H SUB2 O AND M PARENTHESIS Z(NCS) SUB4 PARENTHESIS .NH SUB2 O (1) (M EQUAL MG, CA, SR, OR BA; Z EQUAL ZN OR CD, AND N EQUAL 1-4) WERE DETD. AND THEIR ABSORPTION MAX. ARE TABULATED. THE TETRATHIOCYANATES OF ZN ARE COORDINATED VIA N AND THOSE OF CD VIA S ATOMS. IN THE CRYST. STATE, I (M EQUAL MG; Z EQUAL NZ) AND ALL CD COMPLEXES HAD BRIDGING NCS GROUPS. BRIDGING WAS NOT OBSD. IN SOLNS. SR(NCS) SUB2.3H SUB2 O HAD IONIC NCS GROUPS IN THE SOLID STATE AS WELL AS IN SOLN.

UNCLASSIFIED

Acc. Nr:

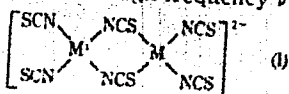
11P0055527

Abstracting Service:
CHEMICAL ABST. 6-70

Ref. Code:

45 0000

116340b Infrared spectra of some zinc and nickel trithiocyanate complexes. Kharitonov, Yu. Ya.; Tsintsadze, G. V.; Tsivadze, A. Yu. (N. S. Kurnakov Inst. Gen. Inorg. Chem., Moscow, USSR). *Inorg. Nucl. Chem. Lett.* 1970, (2), 201-3 (Eng). The IR spectra of $MM'(NCS)_3 \cdot n H_2O$ ($M = Na, K, Cs, NH_4^+, C(NH_3)_4^+$, and $0.5 Ba$; $M' = Zn, Ni$; $n = 0-4$), and $Zn(NCS)_3 \cdot 2H_2O$ were investigated in the cryst. state and in aq. solns. The intense high frequency $\nu(CN)$ components at 2150-70 cm^{-1} were found for all the complexes studied, suggesting the existence of NCS bridges. Strong broad bands at 280-2100 and 2100-20 cm^{-1} were obsd. for the Zn and Ni complexes, resp., indicating terminal NCS groups which are N-bonded. The complexes studied probably have dimeric-tetrahedral structures (I) in the cryst. state. The high frequency $\nu(CN)$ component in



the spectra of aq. solns. of the complexes was not obsd. indicating that the thiocyanate bridges are broken in soln.

CJJN

pc

REEL/FRAME
19840825

7

AP0055528

Abstracting Service:
CHEMICAL ABST. 4-70

Ref. Code:
450000

116316y Infrared spectra of zinc hexathiocyanates. Khari-
topov, Yu. Ya.; Tsintsadze, G. V.; Tsivadze, A. Yu. (N. S.
Kurnakov Inst. Gen. Inorg. Chem., Moscow, USSR). *Inorg.*
Nucl. Chem. Lett. 1970, 6(2), 197-200 (Eng). $M_2[Zn(NCS)_6] \cdot nH_2O$, $M_2M'_2[Zn(NCS)_6] \cdot nH_2O$, and $M_2M'_2[Zn(NCS)_6] \cdot nH_2O$ (M
and $M' = Na, K, Cs, NH_4^+, C(NH_2)_3^+$, and $0.5 Ba$; $n = 0-4$)
were characterized by ir spectra. The position and intensity
of the $\delta(NCS)$ and $2\delta(NCS)$ bands suggest that isothiocyanate
groups, $ZnNCS$, are present in all the complexes investigated.
According to their distorting effect on $[Zn(NCS)_6]^{4-}$ anions in
the crystn. state, the following sequence of cations is tentatively
proposed. $NH_4^+ < Na^+ < K^+ < C(NH_2)_3^+ < Ca^{2+}$. In aq.
solns., $[Zn(NCS)_6]^{4-}$ is predominately present in the non-
dissoc. state.
CJJN

REEL/FRAME
19840826

7

UNCLASSIFIED
TITLE--INFRARED ABSORPTION SPECTRA OF TRITHIOCYANATE COMPLEXES OF ZINC -U-
AUTHOR--KHARITENCO, YU.YA., TSINTCASZE, G.V., TSIVADZE, A.YU.
COUNTRY OF INFO--USSR
SOURCE--Zh. NEORG. KHIM. 1970, 15(2), 390-4
DATE PUBLISHED--70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--IR SPECTRUM, THIOCYANATE, ZINC, ZINC COMPLEX, SODIUM COMPOUND,
POTASSIUM COMPOUND, SELENIUM COMPOUND, MERCURY COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1584/1269
CIRC ACCESSION NO--AP0055940
STEP NO--UR/0078/70/015/002/0390/0394
UNCLASSIFIED

205/25

Acc. Nr: **APC055940** Abstracting Service:
CHEMICAL ABST. 6-70

Ref. Code:

4R0038

116336e Infrared absorption spectra of trithiocyanate complexes of zinc. Kharitonov, Yu. Ya.; Tsintsadze, G. V.; Tsivadze, A. Yu. (Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, USSR). *Zh. Neorg. Khim.* 1970, 15(2), 340-4 (Russ). Ir spectra of $M[Zn(NCS)_3] \cdot xH_2O$ ($M = Na, K, Cs, NH_4$, guanidinium, or $1/2 Ba$ and $x = 1-3$) and $M'(NCX)_3 \cdot nH_2O$ (I) ($M' = Zn, Cd, Hg$ and $X = S$ or Se) are given. An anal. of their absorption bands is tabulated. The tris(thiocyanate) complexes have bridged as well as monodentate (coordinated via N) NCS groups. In I compds., NCX groups are bridged with the exception of $Hg(SCN)_2$ where they are monodentate. Bridging NCS groups were not obsd. in aq. solns. HMJR

pc

REEL/FRAME
13841269

7

Acc. Nr.

AP0034231

Abstracting Service:
CHEMICAL ABST. 4-70

Ref. Code

UR 0078

74283c Products of the reaction of hexamethylenetetramine with cyanates, thiocyanates, and selenocyanates of some metals. Tsintsadze, G. V.; Mamulashvili, A. M.; Demchenko, L. P. (Gruz. Politekh. Inst., Tbilisi, USSR). *Zh. Neorg. Khim.* 1970, 15(1), 276-8 (Russ). The ir absorption frequencies of XCN (X = O, S, or Se) and CN groups of products of reaction of XCN salts of Mn, Co, Ni, Fe, Zn, Cd with hexamethylenetetramine (I) are given. The compds. were also studied by x-ray powder diffraction. Selenocyanates and thiocyanates of Mn, Fe, Co, and Zn form isostructural complexes with I. Metal ions of these complexes are octahedrally coordinated ($4H_2O$ and $2XCN$). Cd complexes have bridging SCN and SeCN groups. Complexes of Mn, Co, and Ni cyanates are isostructural and have I coordinated in the inner sphere.

HMITR

REEL/FRAME
19710884

1/2 018 UNCLASSIFIED
TITLE--PATHOGENESIS OF THROMBOEMBOLIC COMPLICATIONS IN RHEUMOCARDITIS -U-
AUTHOR--(02)--TSINTSADZE, I.N., SHUBLADZE, V.I.
COUNTRY OF INFO--USSR
SOURCE--TERAPEVTICHESKIY ARKHIV, 1970, VOL 42, NR 4, PP 110-115
DATE PUBLISHED--70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--EMBOLISM, HEART DISEASE, RHEUMATIC DISEASE, THROMBOSIS, BLOOD VESSEL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1990/0932
CIRC ACCESSION NO--AP0109089
STEP NO--UR/0504/70/042/004/0110/0115
UNCLASSIFIED

018
CIRC ACCESSION NO--AP0109089 UNCLASSIFIED
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A DETAILED ANALYSIS IS GIVEN OF
THE CLINICO ANATOMICAL MATERIAL (65 CASE HISTORIES OF PATIENTS WITH
RHEUMOCARDITIS ACCOMPANIED BY THROMBOEMBOLIC COMPLICATIONS AFFECTING THE
INTERNAL ORGANS, AND AUTOPSY FINDINGS). THE AUTORS COME TO THE PRESENCE OF
CONCLUSION THAT IT IS VASCULAR THROMBOSIS PROVOKED BY THE PRESENCE OF
RHEUMATIC VASCULITIS BUT NOT EMBOLISM THAT IS THE MAIN CAUSE OF THESE
COMPLICATIONS.
FACILITY: 1 YA TERAPEVTICHESKAYA KAFEDRA
IBILISSK INST. USOVERSH. VRACHEY.

PROCESSING DATE--13NOV70

UNCLASSIFIED

Acc. Nr: **AF0043694**

Ref. Code: UR 0056

PRIMARY SOURCE: Zhurnal Eksperimental'noy i Teoreticheskoy
Fiziki, 1970, Vol 58, Nr 3, pp 975-978

**ENERGY LOSSES BY A CHARGED PARTICLE
IN AN ISOTROPIC PLASMA LOCATED
IN AN EXTERNAL HIGH FREQUENCY ELECTRIC FIELD**

T. L. Tsvetkovskiy, N. L. Tsintsadze

Polarization losses of energy by a charged particle in an isotropic plasma located in an external u.h.f. electric field is considered. It is shown that in weak u.h.f. electric fields the losses grow quadratically with respect to the u.h.f. field amplitude; in strong u.h.f. fields the losses are much smaller and on this basis suppression of proper Langmuir oscillations can be assessed.

REEL/FRA
19770098

21

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Biochemistry

USSR

UDC: 577.1:612.12.015

TSINTSADZE, T. M.

"Determination of Hyaluronic Acid and Chondroitinesulfates A and S in Blood Serum of Patients With Mammary Gland Cancer"

Sakartvelos SSR, Onkologiis sametsniverokvleviti instituti shromebi, Tr. N.-i. in-t onkol. GruzSSR (Transactions of the Georgian SSR Scientific Research Institute of Oncology), 1968, 5, pp 175-178 (from RZh-Biol. Khimiya, Otdel. Vyp., No 3, 25 Feb 70, Abstract No 3F1719)

Translation: The level of hyaluronic acid (I) and the level of the chondroitinesulfates A and S (CS) were determined in the blood serum of 30 women with mammary gland cancer and in 20 donors. The patients were examined prior to treatment. In the normal state the level of I in blood serum averaged 0.11 ± 0.071 ; the level of CS was 0.19 ± 0.085 . For patients with mammary gland cancer increased level of I and of CS was detected in blood serum (up to 0.51 ± 0.15 and 0.50 ± 0.01 , respectively), compared with normal levels.

1/1

B. N. Gladyshev

USSR

TSINTSADZE, Z., Chief Sanitary Physician of the Transcaucasian Railroad

"Sanitary Supervision of the Road"

Tbilisi, Zarya Vostoka, 26 Aug 70, p 4

Abstract: Activities of the sanitary and epidemiological service of the Transcaucasian Railroad are described. Prevention of the introduction and spread of infectious diseases is a most important task here, due to the location of the railroad. In the summer, acute gastrointestinal diseases are a special concern. Measures taken include: inoculation of personnel and special training in personal hygiene; special cleaning of railroad cars; inspection of water pipes; provision of boiling water on trains; special laboratory cars staffed by physicians and scientists; special health propaganda cars; special sanitation centers at stations; round-the-clock health service; inspection of eating facilities and food to ensure sanitary standards; and so on. The high sanitary standards maintained at some stations are praised, and violations are enumerated.

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USSR

UDC 691.327:620.17

VAYNSHTOK, I. S., SHKOL'NIK, I. E., MIZROKHI, Yu. N., BEREZNIITSKIY, I. V.,
Candidates of Technical Sciences, and TSINTSKILADZE, D. M., Engineer

"Something New in the Technique of Strength Determination of Concrete by
the Ultrasonic Pulse Method"

Moscow, Beton i Zhelzobeton, No 7, Jul 72, pp 15-17

Abstract: The All-Union Scientific Research Institute of Industrial Technology of Precast Reinforced Concrete Structural Parts and Products conducted investigations as an attempt to develop a physically well-founded method of determining the strength of concrete in products, structures, and buildings, with the use of a minimum quantity of calibration samples. The theoretical and experimental data discussed here can be used to simplify the factory control of concrete strength and to confirm the accuracy of the authors' computed relation between the strength, the propagation rate of ultrasonic pulses, and structural defects of concrete of the controlled composition. By the here-described ultrasonic device, which provides a computed time reading of the propagation of oscillations, the strength of concrete can also be determined in cases where a calibration curve can not be plotted on the base of a notable number of samples. Test results by the new method are presented. Two illustrations, three tables, three bibliographic references.

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AN 0015837

FROM: FBIS Daily Report, Soviet Union, 14 Jan 1970, Vol III, Nr 9, pp D2-D3

USSR ORBITAL STATION LOGICAL ANSWER TO MANY PROBLEMS

Moscow SOVIET RUSSIA 10 Jan 70 p 4 L

[Dr of Technical Sciences G. Chernobrovskiy article: "Space Stations"]

[Text] At the beginning of this century, Konstantin Eduardovich Tsiolkovskiy wrote in "The Study of Terrestrial Space": "movement around the earth of a series of projectiles adapted for the existence of reasoning creatures could serve as the basis for the further spread of mankind."

The necessity for creation of orbital space stations equipped with varied research apparatus is evoked by the rapid development of cosmonautics. It has confronted scientists with a multitude of problems--man's presence in space ships, the study of circumlunar space, performance under weightless conditions of scientific, technical and medico-biological experiments, and also preparation for flights to other planets. Just one scientific space laboratory could give more information about the phenomena which occur in the upper layers of the atmosphere and in space than a dozen earth-based observatories and a multitude of weather stations. Measurements performed in space are considerably more accurate, and in some cases even cheaper than those obtained by ground-based methods.

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Space triangulation of the earth's surface permits determination with great accuracy--down to 10-12 meters--of the distance between widely separated points, while the accuracy of conventional measurement is to about 100 meters. Prolonged weightlessness; profound vacuum, which is technically difficult to reproduce on earth, great drop in temperature; the magnetic field of the earth and sun--these all create excellent conditions for physics experiments..

So far no one has succeeded on any elementary particle accelerator in achieving a particle speed on the order of 100 billion electron volts. The speed of particles passing through space reaches 1 billion billion electron volts.

Questions connected with the phenomenon of superconductivity or the thermo-electric effect, experiments in the sphere of gas dynamics and heat exchange, testing of various materials under conditions of cosmic radiation are of great significance for researchers.

Despite the precipitous development of missile technology, the flight of a spaceship with a crew to other planets directly from the surface of the earth is difficult. Evidently such launches should be made from orbital stations. Why? One can obtain an answer to this question by analyzing for example, the ratios between the starting (launch) weight of the carrier rocket to the weight of the vehicle on return to earth. This ratio on circumterrestrial orbit is 100 to 1, for flights to the moon it rises to 1,000 to 1, and for flights to other planets it will increase to 10,000 to 1.

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It is well known that a spaceship with one or two cosmonauts on board is put into circumterrestrial orbit by a carrier rocket weighing several hundred tons. The carrier rocket Saturn-5 which sent the American astronauts to the moon had a starting weight of about 3,000 tons. It is not difficult to imagine what sort of rocket it would be necessary to create in order to set off for the closest planets. According to the crudest calculations, the launch weight of such a rocket must equal 600,000 tons. To convey such a quantity of freight on earth, 10,000 freight cars would be needed.

The creation of super-heavy rockets for interplanetary flights will cause a sharp increase in the cost of space-rocket systems, and in several cases it will make their technical embodiment unrealistic.

But if one proceeds to assemble orbital space stations, the elements of which can be carried into space by several rockets, then at least two problems will be solved: creation of technically feasible and evidently cheaper systems. Small carrier rockets can be used for the solution of a whole series of problems in near and distant space, which is economically more profitable. Thus, launching spaceships from orbit could turn out to be the only method of effecting future interplanetary communications.

Work on the Soyuz program provides for study of circumterrestrial space, scientific and technical research, and also creation of manned orbital stations. In accordance

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with this program, the space stations Soyuz-4 and Soyuz-5 were put into orbit around the earth on 14 and 15 January 1969. After their approach to within 100 meters of each other on 16 January, pilot-cosmonaut Vladimir Shatalov went over to manual control. Maneuvering Soyuz-4, he docked with Soyuz-5. After docking, the mutual mechanical link-up of the ships took place and also their rigid drawing together and connection of electrical circuits. Thus an orbital station was created for the first time.

The new scientific and technical experiment on the Soyuz-6, Soyuz-7, and Soyuz-8 spaceships that was successfully fulfilled quite recently enabled cosmonauts to perform much work the results of which are particularly valuable for creation of prefabricated orbital space stations.

The orbital space station (OSS) of the near future could be rigid construction, made, for example in the form of a torus or dumbbells, or it could be made of several separate sections joined by flexible links. In both cases rotation of the system is envisaged to create artificial gravity. Creation of an OSS with flexible links does not require rigid linkup in orbit.

Space welding will be of greater importance for creation of rigid orbital space stations. Such welding was performed successfully by the crew of the Soyuz-6 space ship.

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"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R002203330009-9

UNCLASSIFIED
SYNTHESIS OF POLYSILYLUREAS AND POLYSILYLUREYLENES -U-
PROCESSING DATE--27NOV70
AUTHOR--(04)--GOLDIN, G.S., TSIOMO, S.N., SHCHEKINA, T.V., KOZYUKOV, V.P.
COUNTRY OF INFO--USSR
SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(4), 307-9
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--MOLECULAR STRUCTURE, SPECTROSCOPIC ANALYSIS, ISOCYANATE, UREA,
SOLUBILITY, ORGANIC SOLVENT, ORGANOSILICON COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAHE--3006/1240
CIRC ACCESSION NO--AP0134914
STEP NO--UR/0460/70/012/004/0307/0309
UNCLASSIFIED

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R002203330009-9"

CIRC ACCESSION NO--AP0134914
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--27NOV70

ABSTRACT. OLIGOMERIC POLY(SILYLUREAS) (I, R
EQUALS O, CH SUB2, (CH SUB2) SUB2, OR (CH SUB2) SUB3) WERE PREPD. BY A
REACTION OF BIS((GAMMA ISOCYANATOPROPYL)DIETHYLSILYL)ALKANES (II) OR
1,3-BIS(GAMMA ISOCYANATOPROPYL)-1,1,3,3-TETRAMETHYLDISILOXANE (III) WITH
MENH(CH SUB2) SUB2 NHME. REACTION OF N SUB2 H SUB4 OR PHNHNH SUB2 WITH
II OR III GAVE POLY(SILYLUREYLENES) (IV, R EQUALS O OR (CH SUB2) SUB3),
ALMOST INSOL. IN ORG. SOLVENTS. THE STRUCTURE OF THE POLYMERS WAS DETD.
BY IR SPECTROSCOPY AND ELEMENTAL ANAL.

UNCLASSIFIED

UNCLASSIFIED
TITLE--TRANSYDRAZINATION OF HYDRAZONES -U-
AUTHOR-(03)-GOLDIN, G.S., TSIOMO, S.N., SHOR, G.S.
PROCESSING DATE--30OCT70
COUNTRY OF INFO--USSR
SOURCE--ZH. ORG. KHIM. 1970, 6(4), 754-7
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--HYDRAZINE, HYDRAZONE, CHEMICAL REACTION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FAME--2000/1956
CIRC ACCESSION NO--AP0125545
STEP NO--UR/0366/70/006/004/0754/0757
UNCLASSIFIED

CIRC ACCESSION NO--AP0125545
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--30OCT70

ABSTRACT. THE REFLUXING OF ET SUB2 NNH SUB2 WITH ME SUB2 NN:CRR PRIME1 AND 0.5PERCENT NH SUB4 CL GAVE 56-80PERCENT ET SUB2 NNH:CRR PRIME1 (I). SIMILARLY, STARTING WITH ME SUB2 NNH SUB2 ME SUB2 NN:CRR PRIME1 (II) WERE PREPD. (COMPD. R AND R PRIME1 GIVEN): I, ET, ET; I, H, H; I, H, ME; I, H, ET; I, H, PR; I, H, ISO-PR; I, H, ISO-BU; I, ME, ME; I, ME, ET; I, ME, PR; I, ME, ISO-PR; II, H, H; II, H, ME; II, H, ET; II, H, PR; II, H, ISO-PR; II, H, ISO-BU; II, ME, ME, II, ME, ET; II, ME, PR; II, ME, ISO-PR; II, ME, ISO-BU. THE TRANSYDRAZINATION IS A REVERSIBLE REACTION; THE POSITION OF EQUIL. DEPENDS ON R AND R PRIME1. THE TIME REQUIRED TO ATTAIN EQUIL. INCREASES WITH THE MOL. WT. OF THE REACTANTS.

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--20NOV70

TITLE--SYNTHESIS OF DISILYLUREAS -U-
AUTHOR--(041)-SHCHEKINA, T.V., KOZYUKOV, V.P., GOLDIN, G.S., TSIGNO, S.N.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(4), 821-3

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--UREA SYNTHESIS, AMMONIA, ORGANOSILICON COMPOUND, ETHER

CENTRAL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1065

CIRC ACCESSION NO--AP0128492

STEP NO--UR/0079/70/040/004/0821/0823

UNCLASSIFIED

2/2 010

CIRC ACCESSION NO--AP0128492

UNCLASSIFIED

PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PASSING DRY NH SUB3 INTO (OCNCH
SUB2 CH SUB2 CH SUB2 SIME SUB2) SUB2 D IN ET SUB2 U GAVE 95PERCENT (R
PRIME1 R PRIME2 NCONHICH SUB2) SUB3 SIME SUB2) SUB2 Z (I) (Z EQUALS O, R
PRIME1 EQUALS R PRIME2 EQUALS H), M. 127DEGREES. (BUNH SUB2 SIMILARLY
GAVE 85PERCENT I (Z EQUALS O, R PRIME1 EQUALS H, R PRIME2 EQUALS BU), M.
58-50DEGREES. SIMILAKLY WERE PREPD. THE FOLLOWING I (70-92PERCENT) (Z, R
PRIME1, AND R PRIME2 GIVEN): O, H, C SUB6 H SUB13, M. 42-4DEGREES; O,
ET, ET, RESIN; C, BU, BU, RESIN; CH SUB2, ET, ET, M. 208-10DEGREES; CH
SUB2, BU, BU, M. 187-8DEGREES; (CH SUB2) SUB3, H, BU, M. 38-9DEGREES;
(CH SUB2) SUB3, H, C SUB6 H SUB13, RESIN; (CH SUB2) SUB3, ET, ET, RESIN;
AND (CH SUB2) SUB3, BU, BU, RESIN.

UNCLASSIFIED

Acc. Nr.

APC049765

Abstracting Service:

CHEMICAL ABST. 5-70

Ref. Code:

UR0495

101869g Standards for the strength of adhesive bonds of footwear bottoms. Ovechkis, E. S.; Tsveifel, R. Sh.; Tsipenvuk A. Ya. (USSR). Kozh. Obuv. Prom. 1970, 12(1), 42-5 (Russ). The anal. of process control tests and field trials of several shoe factories resulted in proposing the following stds. for resin delamination strengths (S) between shoe uppers of natural leather and soles bonded together with adhesives (sole material, S in kg/cm given): leather and solid rubber, 9.0; porous rubber 10.0-12.0; porous rubber filled with fibers, 13.0; Stironip, 14.0. The above S values may be lowered by 1 kg/cm when synthetic leather is used for uppers. Low-grade molded or wholly adhesive-bonded shoes have S = 2.5 kg/cm.

CPJR

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REEL/FRAME

13801683

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172 041
UNCLASSIFIED
TITLE--COMPATIBILITY OF BUTADIENE STYRENE RUBBER WITH THERMOPLASTIC RESINS
-U-
AUTHOR--TSIPENYUK, E.V.
COUNTRY OF INFO--USSR
SOURCE--KHIM. PROM. UKF. 1970, (1) 56-7
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--BUTADIENE STYRENE RESIN, RUBBER, THERMOPLASTIC MATERIAL,
POLYSTYRENE RESIN, SULFUR, VULCANIZATION, TENSILE STRENGTH, ELONGATION,
ELECTRON MICROSCOPY, IR SPECTRUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1092/1512
STEP NO--UR/0436/70/000/001/0056/0057
CIRC ACCESSION NO--AP0112506
UNCLASSIFIED

CIRC ACCESSION NO--AP0112506 UNCLASSIFIED
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BLENDING OF 1 PART POLYSTYRENE
(II) WITH 3 PARTS BUTADIENE STYRENE RUBBER (II) AT 150DEGREES, FOLLOWED
BY THE INTRODUCTION OF S. AND ACCELERATORS AT 60-70DEGREES AND
VULCANIZATION AT 143DEGREES GAVE RUBBER WITH 21.3-3.5 KG-CM PRIME2
TENSILE STRENGTH AT BREAK (SIGMA) AND 84-94PERCENT ELONGATION AT BREAK
(EPSILON). THE ROLLING OF I-II MIXTS. AT 150DEGREES, FOLLOWED BY THE
REMAINING 2 OPERATIONS, CARRIED OUT AS ABOVE, GAVE RUBBERS WITH SIGMA
6.5-5.8 KG-CM PRIME2 AND EPSILON 427-570PERCENT. ELECTRON MICROSCOPY
AND IR SPECTROSCOPY SHOWED THAT THERE IS NO CHEM. INTERACTION BETWEEN I
AND II DURING BLENDING OR ROLLING.

PROCESSING DATE--02OCT70

UNCLASSIFIED

UNCLASSIFIED
TITLE--INDUSTRIAL TESTING OF COLORED SOLE RUBBERS
XANTHANE 5, IMINO, 1, 2, 4, DITHIAZOLIDIN, 3, THIONE -U-
AUTHOR-(U4)-MELAMED, CH.L., BLOKH, G.A., TSIPENYUK, E.V., LEBED, I.G.
PROCESSING DATE--23OCT70
COUNTRY OF INFO--USSR
SOURCE--KOZH. OBUV. PROM. 1970, 12(2), 54-6
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS, MILITARY SCIENCES
TOPIC TAGS--FOOTGEAR, STYRENE, VULCANIZATION, THIAZOLE, RUBBER/(U)SKMS30RP
STYRENE RUBBER, (U)BS45AK SYNTHETIC RUBBER
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0938
CIRC ACCESSION NO--AP0124598
STEP NO--UR/0498/70/012/002/0054/0056
UNCLASSIFIED

012
CIRC ACCESSION NO--AP0124598. UNCLASSIFIED
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HYDROGEN XANTHANE IS A GOOD
VULCANIZATION ACCELERATOR FOR STYRENE RESINS OF THE TYPE SKMS-30RP AND
BS-45-AK AND MAY REPLACE CAPTAX AND ALTAX. FOR MIXTS. CONTG. NATURAL
RUBBER A MIXT. OF HYDROGEN XANTHANE AND CAPTAX OR ALTAX WAS USED.
PROCESSING DATE--23OCT70

UNCLASSIFIED

USSR

RZHEVSAIY, V. A. and TSIPENYUK, I. F.

UDC: 539.4:624.011

"Comparing the Reactions of Elastic and Elastoplastic Systems to Seismic Actions"

Tr. Kishinev. politekhn. in-t (Transactions of the Kishinev Poly-technical Institute) 1970, No. 21, pp 186-191 (from RZh-Mekhanika, No. 2, Feb 71, Abstract No. 2V954)

Translation: Results are given of investigations of the motion of elastic-plastic single-mass oscillators. The dependence between the mass displacements and the restoring force is given in the form of a Prandtl diagram. The external action is specified in the form of a stationary harmonic acceleration applied to the base of the oscillator. A numerical solution of the differential equations of motion was realized with the M-20 computer for a large number of variants of the oscillator parameters. The fre-

USSR

RZHEVSKIY, V.A., et al, Tr. Kishinev. politekhn. in-t, 1970, No 21, pp 186-191 (from RZh-Mekhanika, No 2, Feb 71, Abstract No 2V954)

quencies of small linear oscillations were varied relative to the plastic deformation and the yield point. The conclusion was drawn that the maximum deformations of the elastic-plastic and elastic oscillator differ substantially from each other in a narrow range of frequencies close to the resonance zone, responding to the equality of frequencies of the external action and the natural oscillations of the oscillator in the elastic region. On the basis of some logical discussion, the conclusion is drawn that the seismic load on a reinforced concrete structure can be determined without considering the plastic deformations; i.e., as in elastic systems. Ya. M. Ayzenberg

2/2

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USSR

GANGRSKIY, YU. P., MARKOV, B. N., KHARISOV, I. F., and TSIPENYUK, YU. M.,
Institute of Physical Problems, Academy of Sciences USSR, Joint Institute
for Nuclear Research

"Action of Spontaneously Fissionable Isomeric States of Pu^{239} and Am^{243}
During Inelastic Scattering of Gamma-Quanta"

Moscow, Pis'ma v Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 14,
No 6, 20 Sep 71, pp 370-372

Abstract: Investigating the activation mechanism of spontaneously fission-
able isomeric levels in various nuclear reactions is one of the basic means
of studying the nature of these states. The authors use two possible means
of activating the isomeric state: (1) the activation of levels lying
above the fission barrier (in the energy range of 6-10 MeV), and their dis-
charge using radiation transitions to the levels of the second holes for
the isomeric state; and (2) the activation of levels in the first hole below
the fission barrier (with an energy of 3-6 MeV) and subsequent tunnel transi-
tion to the second potential hole. The results of this article reveal the
possibility of studying the properties of spontaneously fissionable isomers
in reactions of inelastic scattering of gamma-quanta. By using a larger
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USSR

GANGRSKIY, YU. P., et al., Pis'ma v Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 14, No 6, 20 Sep 71, pp 370-372

number of test data it is possible to utilize lower activation energies and thus more fully investigate the mechanism of populating the isomeric state and establish the structure of the fission barrier of the nuclei. The article contains 2 illustrations and 9 bibliographic entries.

2/2

- 122 -

UNCLASSIFIED
TITLE--ANGULAR ANISOTROPY OF PLUTONIUM 239 PHOTOFISSION -U-
AUTHOR--(03)-SOLDATOV, A.S.; TSIPENYUK, YU.M., SMIRENKIN, G.N.
COUNTRY OF INFO--USSR
SOURCE--YAD. FIZ. 1970, 11(5), 992-1000
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY
TOPIC TAGS--ANTISCTROPY, PLUTONIUM ISOTOPE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3008/0579
CIRC ACCESSION NO--AP0137664
STEP NO--UR/0367/70/011/005/0992/1000
UNCLASSIFIED

007
CIRC ACCESSION NO--AP0137664 UNCLASSIFIED
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ENERGY DEPENDENCE OF THE CROSS
SECTION AND THE ANGULAR ANISOTROPY NEAR THE THRESHOLD WAS MEASURED FOR
THE REACTIONS PRIME239 PU (GAMMA,F) AND PRIME238 PU (GAMMA,F). A QUASI
STATIONARY PRIME239 PU LEVEL WAS FOUND AT 5.6 MEV, 0.5 MEV BELOW THE
THRESHOLD.
FACILITY: FIZ.-ENERG. INST., MOSCOW, USSR.

PROCESSING DATE--27NOV70

UNCLASSIFIED

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R002203330009-9

UNCLASSIFIED
PROCESSING DATE--09OCT70
AMERICIUM ISOMERS -U-
AUTHOR--(03)--MARKOV, B.N., GANGRSKIY, YU.P., TSIPENYUK, YU.M.
COUNTRY OF INFO--USSR
SOURCE--YAD. FIZ. 1970, 11(1), 54-8
DATE PUBLISHED--70
SUBJECT AREAS--PHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY
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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PRODUCTION OF SPONTANEOUSLY
FISSIONABLE ISOMERS PRIME240 AM AND PRIME242 AM IN (GAMMA,N) REACTIONS
ON PRIME241 AM AND PRIME243 AM IS INVESTIGATED. THE FISSION FRAGMENTS
WERE DETECTED BY A SPARK COUNTER. THE INTEGRAL YIELDS OF BOTH THE
ISOMERS WERE MEASURED, DEPENDENT ON THE END POINT ENERGY OF THE
BREMSSTRAHLUNG GAMMA QUANTA. THRESHOLDS OF THE REACTIONS PRODUCING THE
ISOMER STATES ARE DETD. AND EXCITATION ENERGIES FOR THE ISOMER LEVELS
ARE CALCD. THE ISOMERIC RATIO FOR PRIME240 AM IS CALCD. FROM THE
COMPARISON OF THE FRAGMENT YIELDS OF THE DELAYED AND INDUCED FISSION.
SINCE A CONTINUOUS SPECTRUM OF GAMMA QUANTA IS FORMED IN THE
BREMSSTRAHLUNG OF THE SOURCE E, THE OBSD. FRAGMENT YIELD (SPONTANEOUS
AND DELAYED) CAN BE RELATED MATH. TO THE REACTION CROSS SECTION. THE
PHOTONUCLEAR REACTIONS CAN BE USED TO INVESTIGATE THE PROPERTIES OF THE
SPONTANEOUSLY FISSIONABLE ISOMERS.
YAD. ISSLED., DUBNA, USSR.
FACILITY: OB'EDIN, INST.

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GANGRSKIY, Yu. P., MARKOV, B. N., TSIPENYUK, Yu. M., Joint Institute of Nuclear Research, Institute of Physical Problems, Academy of Sciences USSR

"Investigation of (γ, n) Reactions Resulting in Formation of Spontaneously Fissionable Am Isomers"

Moscow, Yadernaya Fizika, Vol 11, No 1, 1970, pp 54-58

Abstract: A study was made of (γ, n) reactions resulting in the formation of spontaneously fissionable Am-240 and Am-242 isomers. The experiments were carried out on the microtron of the Institute of Physical Problems, Academy of Sciences USSR, with 17 orbits. A multiwire spark counter was used as the fission fragment detector. The targets were made of separated isotopes Am-241 and Am-243. The dependence of the integral yields of both isomers on the end-point gamma-quantum energy was measured. The thresholds of reactions resulting in spontaneously fissionable isomers were determined, and the excitation energies of the isomeric levels were calculated. The isomeric ratio for Am-240 was calculated by comparing the fragment yields of delayed and induced fission. The results indicate that photonuclear reactions can be successfully used to study the properties of spontaneously fissionable isomers.

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